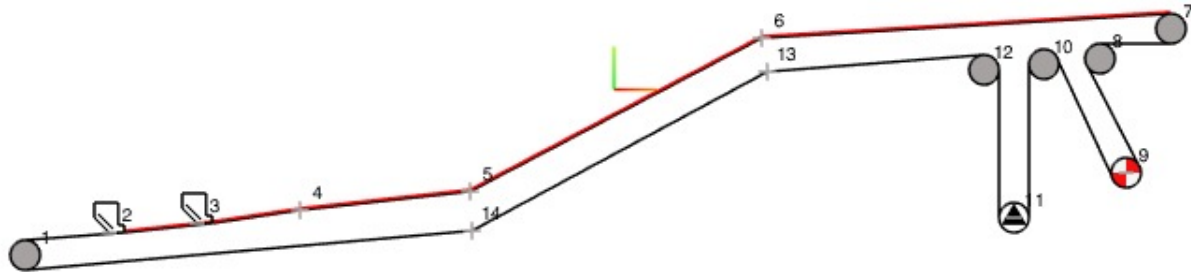


Project	Demo 02 Conveyor High Lift	Client	ABC Iron
Project No.	P9823	Prepared By	Peter Burrow
Conveyor No.	C223	Design Date	01 Oct 2019



C223



Running Fully Loaded Belt Resonance

Carry Roll Diameter	152 mm	Belt Speed	4.3 m/s
Return Roll Diameter	152 mm	Takeup Mass	26700 kg
		Belt Resonance +/- Tolerance	2 %

<u>Station / Section</u>		Start Belt Tension kN	End Belt Tension kN	Belt Transverse Wave Frequency Range		Idler Roll Excitation Frequency Hz	Section Idler Spacing m	Critical Idler Spacing Start m	Critical Idler Spacing End m	Idler Spacing Within +/- 2% m	Mode
Station	Description			Hz	to Hz						
1	Tail	121.01	121.4	19	19.03	9	1	2.11	2.11	OK	
2	Hopper	121.4	142.78	13.2	14.57	9	0.45	0.66	0.73	OK	
3	Hopper	142.78	155.17	14.57	15.31	9	0.45	0.73	0.76	OK	
4	Int. Pt	155.17	169.73	4.59	4.84	9	1.5	0.76	0.81	Warning	2
5	Int. Pt	169.73	371.5	4.84	7.48	9	1.5	0.81	1.25	OK	
6	Int. Pt	371.5	418.4	9.34	9.96	9	1.2	1.25	1.33	OK	
7	Head	422.81	422.63	11.95	11.94	9	3	3.98	3.98	OK	
8	Bend	427.08	421.64	12.01	11.93	9	3	4	3.97	OK	
9	Drive	127.82	134.48	6.51	6.69	9	3	2.17	2.23	OK	
10	Bend	136.02	130.92	6.72	6.59	9	3	2.24	2.2	OK	
11	Takeup	132.42	137.58	6.63	6.76	9	3	2.21	2.25	OK	
12	Bend	139.14	137.89	8.5	8.47	9	2.4	2.27	2.26	OK	
13	Int. Pt	137.89	119.29	6.77	6.29	9	3	2.26	2.09	OK	
14	Int. Pt	119.29	119.62	6.29	6.3	9	3	2.09	2.1	OK	

All Figures are Running Fully Loaded Scenario